

OCEANOGRAPHY

Icebergs Heavy This Year

Earlier appearance of icebergs has caused the southward shift in shipping routes to be made about five weeks before the usual date.

► ICEBERGS and field ice in the treacherous, fog-laden Grand Banks area off Newfoundland are more numerous than usual and have showed up earlier than normal.

The resulting southward shift in shipping lanes on the world's most heavily traveled sea route was made about five weeks earlier than usual. The normal date for changing from track C, the most northerly of the European-U. S. routes, to track B is April 11, but this year the switch was made on March 3.

The tracks and when to use them are worked out by agreement among the shipping companies, based on information concerning ice conditions as spotted by three B-17's flying out of Argentia, Newfoundland, especially equipped with radar and loran.

These planes are operated by the U. S. Coast Guard, which runs the International Ice Patrol by international agreement. Iceberg and field ice have been low enough in the last six years so that the three B-17's were sufficient for adequate patrol. The heavy iceberg season this year, however, has caused the Coast Guard to de-

cide to send the cutter Acushnet to the Grand Banks area for surface patrol.

On April 1, as scheduled, the Coast Guard cutter Evergreen will visit the region in order to make surveys of ocean currents there.

Two main currents influence how far south the towering white mountains will penetrate. The Labrador current sweeps them down from the Davis Strait area until they melt in the warm waters of the Gulf current.

The two currents meet southeast of Newfoundland in the Grand Banks area. There the Titanic's side was ripped by the jagged underwater edge of an iceberg on April 14, 1912, and the damaged ship sank with 1,517 of 2,223 persons aboard.

This disaster resulted in the formation of the International Ice Patrol. It also illustrates the iceberg's greatest menace—its deceitful appearance.

Only about 15% of its tremendous bulk shows above water, the rest lies hidden below the surface and can protrude far from the visible portion.

Science News Letter, March 16, 1957

MEDICINE

Add Disposable Kidney to List of Artificial Organs

► A SMALL ARTIFICIAL KIDNEY that is inexpensive and can be thrown away after use was reported by Dr. Willem J. Kolff of the Cleveland Clinic, Cleveland, Ohio, at the clinical meeting of the Chicago Medical Society meeting in Chicago.

The advantages of the new lifesaving device are its ease of operation and the elimination of the time-consuming job of cleaning, sterilizing and setting up, necessary with the older and larger artificial kidneys, Dr. Kolff explained.

The coil kidney is made up of a piece of cellophane-like tubing about 11 yards long sandwiched between two strips of fiberglass screen. The sandwich is rolled into a coil around a fruit juice can about four inches in diameter and put inside a larger can. The combination is then sealed and sterilized and can be either stored or shipped for use.

In use, blood from a patient's artery is sent through the cellulose tubing. The coil is surrounded by a rinsing fluid that is pumped up through the container, allowed to overflow from the top, then recirculated.

Poisonous substances in the blood diffuse out through the tubing and are washed away and the blood is returned to one of the patient's veins.

The process is known as dialysis and has saved the lives of many patients suffering from acute kidney failure.

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NUTRITION

Diet Secrets of Bantus

► AMERICANS and other Western peoples had better find out what keeps the Bantu natives of South Africa so healthy on their skimpy diets or the life-span we enjoy today may drop off in the coming years, Dr. A. R. P. Walker of the South African Institute for Medical Research reported to a conference on protein nutrition in New York.

The Bantus thrive on a diet which lacks many of the nutrients considered essential for good health. Despite that, or perhaps because of it, the natives are relatively free from heart disease, certain types of cancer, diabetes, peptic ulcers and appendicitis, he reported.

The Bantu diet consists mainly of cereals, including wheat and corn, and vegetables. This type of diet supplies enough calories and high-quality protein, but it is sometimes almost completely lacking in calcium, riboflavin, and vitamin D. By most standards the diet is inadequate, Dr. Walker said.

But a ten-year study of the Bantus reveals these important facts: atherosclerosis, a form of hardening of the arteries, is very rare in the Bantu, and when it does exist it seldom leads to heart disease as it does

in Americans. The level of cholesterol in the blood is also much lower in the Bantu people than it is in Americans.

Although calcium is supposed to be essential for pregnant women and nursing mothers, the Bantu get very little of it in their diet but still produce more and higher quality breast milk than do American and British mothers.

Despite the low calcium and vitamin D content of their diet, a recent study showed that 90% of Bantu children were free from dental caries.

Their bones are as strong as Americans' and possibly heal quicker.

The picture is not all rosy, though, Dr. Walker emphasizes. The Bantus suffer from a high disease and death rate during childhood, and liver disease during later life.

Even so, they are relatively free from certain diseases which, when taken together, exact a high toll of mortality from western populations, he reported.

The conference on protein nutrition is being sponsored jointly by the New York Academy of Sciences and the E. I. du Pont de Nemours & Co., Inc.

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HAS DIET SECRETS—This Swazi warrior may have other problems, but heart disease and allied malfunctions of western man are virtually unknown to him. The reason is probably the food he eats, Dr. A. R. P. Walker, South African nutritionist, told scientists attending the Conference on Protein Nutrition in New York.